

CLAIMS

We claim:

1. A woven material with an incorporated particulate solid.
2. The woven material according to claim 1, wherein the incorporated particulate solid is in an amount of about 10 g/m² to about 70 g/m².
3. The woven material according to claim 2, wherein the incorporated particulate solid is in an amount of about 15 g/m² to about 30 g/m².
4. The woven material according to claim 1, wherein the incorporated particulate solid is in an amount of about 10 g/m².
5. The woven material according to claim 1, wherein the incorporated particulate solid is in an amount of about 15 g/m².
6. The woven material according to claim 1, wherein the incorporated particulate solid is in an amount of about 20 g/m².
7. The woven material according to any one of claims 4-6, wherein the woven material has a weight of less than or equal to about 20 oz/yd².
8. The woven material according to claim 7, wherein the woven material has a weight of about 3 oz/yd² to about 7 oz/yd².
9. The woven material according to claim 8,

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wherein the incorporated particulate solid is activated carbon, graphite, silica gel, activated alumina, aluminum trihydrate, pot ash, baking soda, paramethoxy 2-ethoxyethylester cinnamic acid, zinc oxide, or titanium dioxide.

10. The woven material according to claim 9, wherein the incorporated particulate solid is activated carbon.

11. The woven material according to claim 1, wherein said woven material has a wicking height of about 100% to about 400% greater than the wicking height of the woven material without an incorporated particulate solid.

12. The woven material according to claim 11, wherein said woven material has a wicking height of about 120% greater than the wicking height of the woven material without an incorporated particulate solid.

13. The woven material according to claim 11, wherein said woven material has a wicking height of about 380% greater than the wicking height of the woven material without an incorporated particulate solid.

14. The woven material according to claim 1, wherein said woven material has a UV adsorption value of about 2- to about 10-times greater than the UV adsorption value of the woven material without an incorporated particulate solid.

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15. The woven material according to claim 14, wherein said woven material has a UV adsorption value of about 3- to about 4-times greater than the UV adsorption value of the woven material without an incorporated particulate solid.

16. The woven material according to claim 1, wherein the incorporated particulate solid is activated carbon, graphite, silica gel, activated alumina, aluminum trihydrate, pot ash, baking soda, paramethoxy 2-ethoxyethylester cinnamic acid, zinc oxide, or titanium dioxide.

17. The woven material according to claim 16, wherein the incorporated particulate solid is activated carbon.

18. The woven material according to claim 17, wherein the incorporated particulate solid is in an amount of about 10 g/m².

19. A garment comprising a woven material with an incorporated particulate solid according to any one of claims 1-18.

20. A process for producing a woven material with an incorporated particulate solid which process comprises:

- a. entraining a particulate solid in a gaseous carrier;
- b. disposing a first face of a woven material in the path of a stream of the gaseous carrier and entrained particulate solid;
- c. maintaining a pressure drop across the

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woven material from the first face to a second face of said material, thereby to incorporate at least some of the entrained particulate solid in the gaseous carrier into the woven material; and

d. fixing the incorporated particulate solid.

21. The process according to claim 20, wherein the direction of the pressure drop across the woven material is controlled.

22. The process according to claim 21, wherein the direction of the pressure drop across the woven material is controlled through the use of slats positioned beneath the woven material.

23. The process according to claim 20, wherein the woven material has a weight of less than or equal to about 20 oz/yd².

24. The process according to claim 23, wherein the woven material has a weight of about 3 oz/yd² to about 7 oz/yd².

25. The process according to claim 20, wherein the particulate solid has odor-adsorbing properties.

26. The process according to claim 20, wherein the particulate solid has moisture management properties.

27. The process according to claim 20, wherein the particulate solid has ultraviolet

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protection properties.

28. The process according to claim 20, wherein the particulate solid is activated carbon, graphite, silica gel, activated alumina, aluminum trihydrate, pot ash, baking soda, paramethoxy 2-ethoxyethylester cinnamic acid, zinc oxide, or titanium dioxide.

29. The process according to claim 28, wherein the particulate solid is activated carbon.

30. The process according to claim 29, wherein the particulate solid is incorporated in an amount of about 10 g/m² to about 70 g/m².

31. The process according to claim 28, wherein the pressure drop is effected by applying suction to the second face of the woven material.

32. The process according to claim 31, comprising providing a supply zone, wherein the stream of gaseous carrier and entrained particulate solid are supplied directly to the first face of the woven material, and a suction zone for applying suction to the second face of the woven material.

33. The process according to claim 32, wherein at least some of any remaining entrained particulate solid is recirculated.

34. The process according to claim 33, wherein the gaseous carrier and entrained particulate solid are substantially free of fibrous material.

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35. The process according to claim 20, wherein the particulate solid is thermally fixed in the woven material.

36. The process according to claim 35, wherein the thermal fixing is induced by the application of infra-red energy to the woven material.

37. The process according to claim 20, wherein the particulate solid is fixed in the woven material with the aid of a chemical binder.

38. A woven material with an incorporated particulate solid produced by a process according to any one of claims 20 to 37.

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